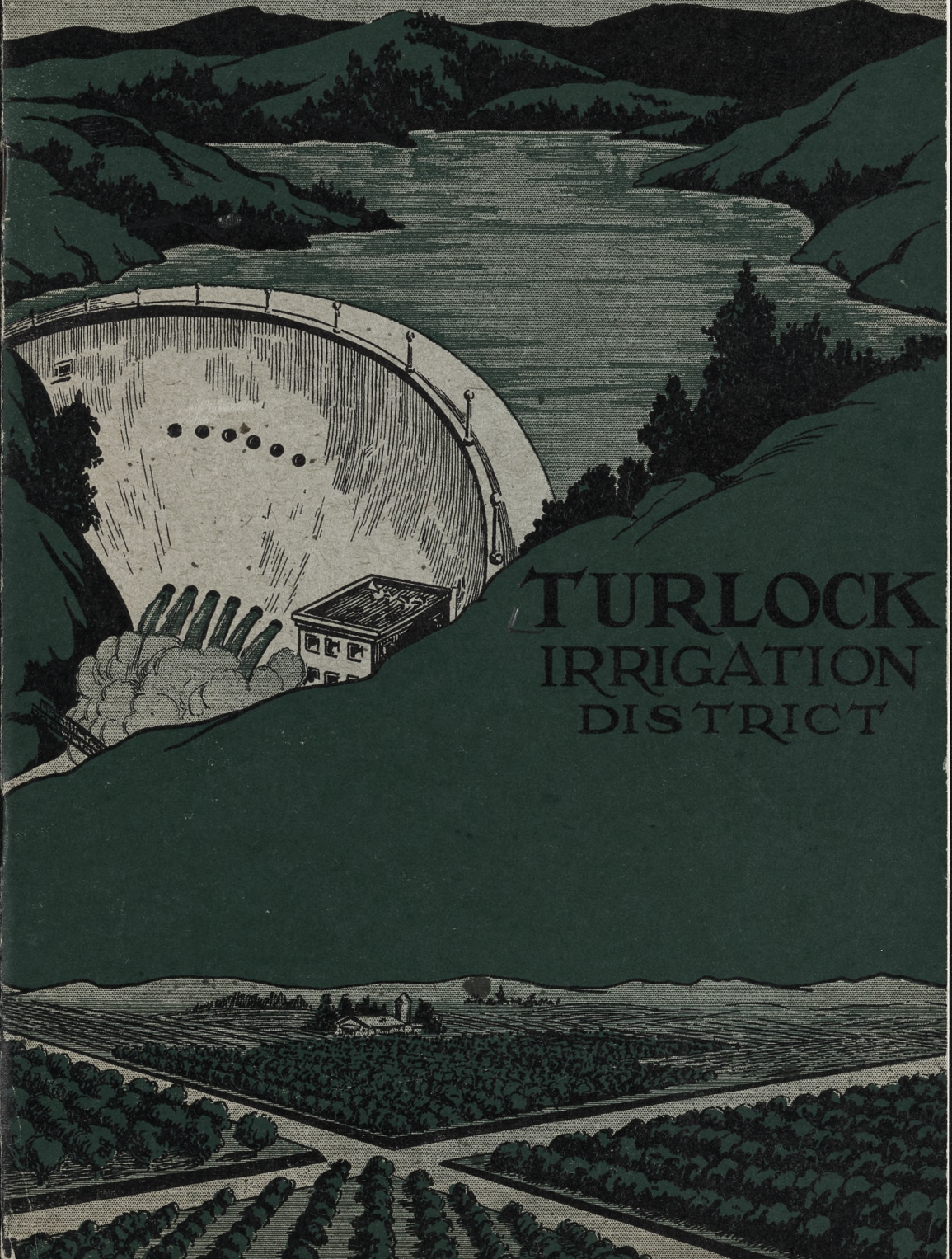
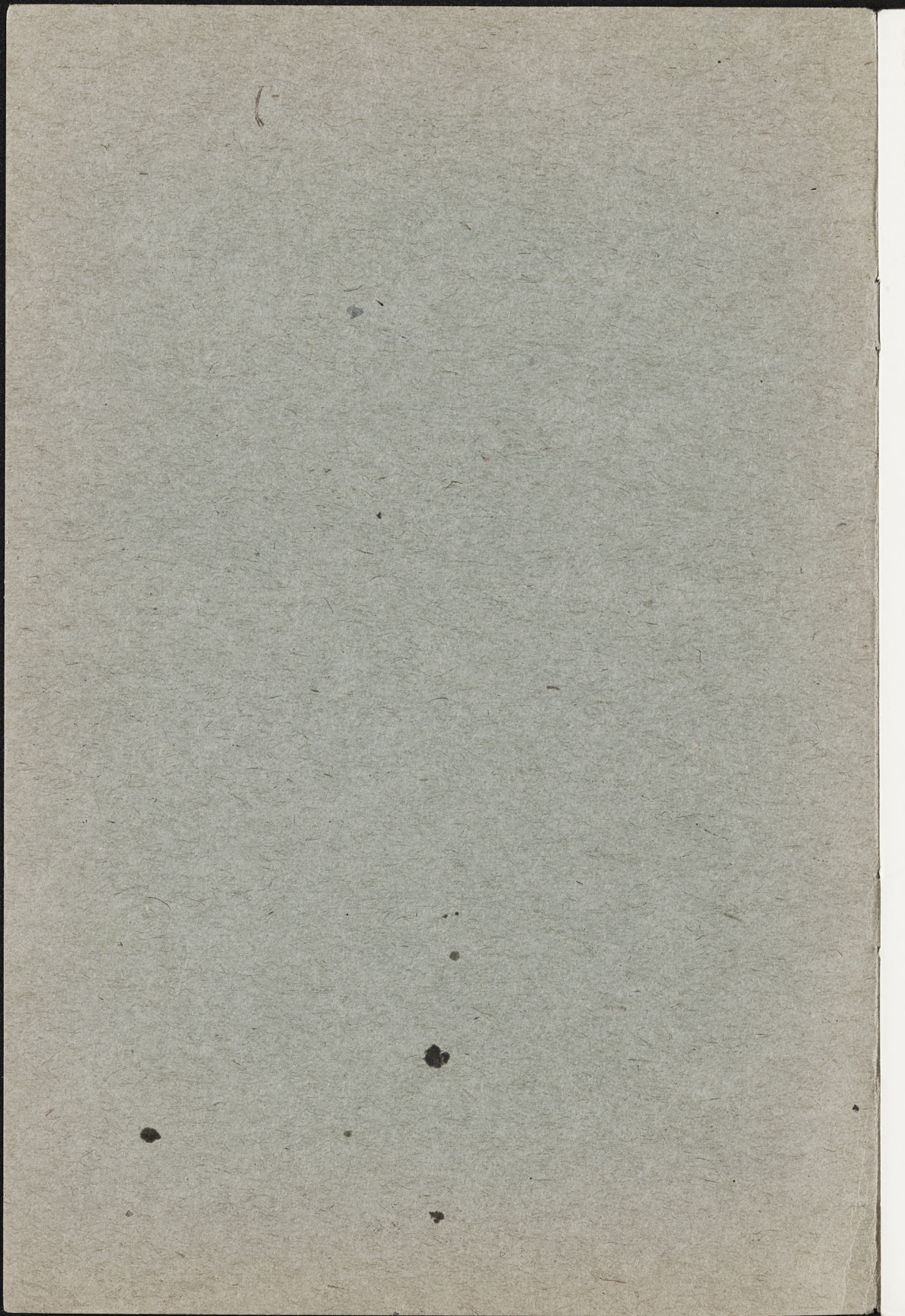
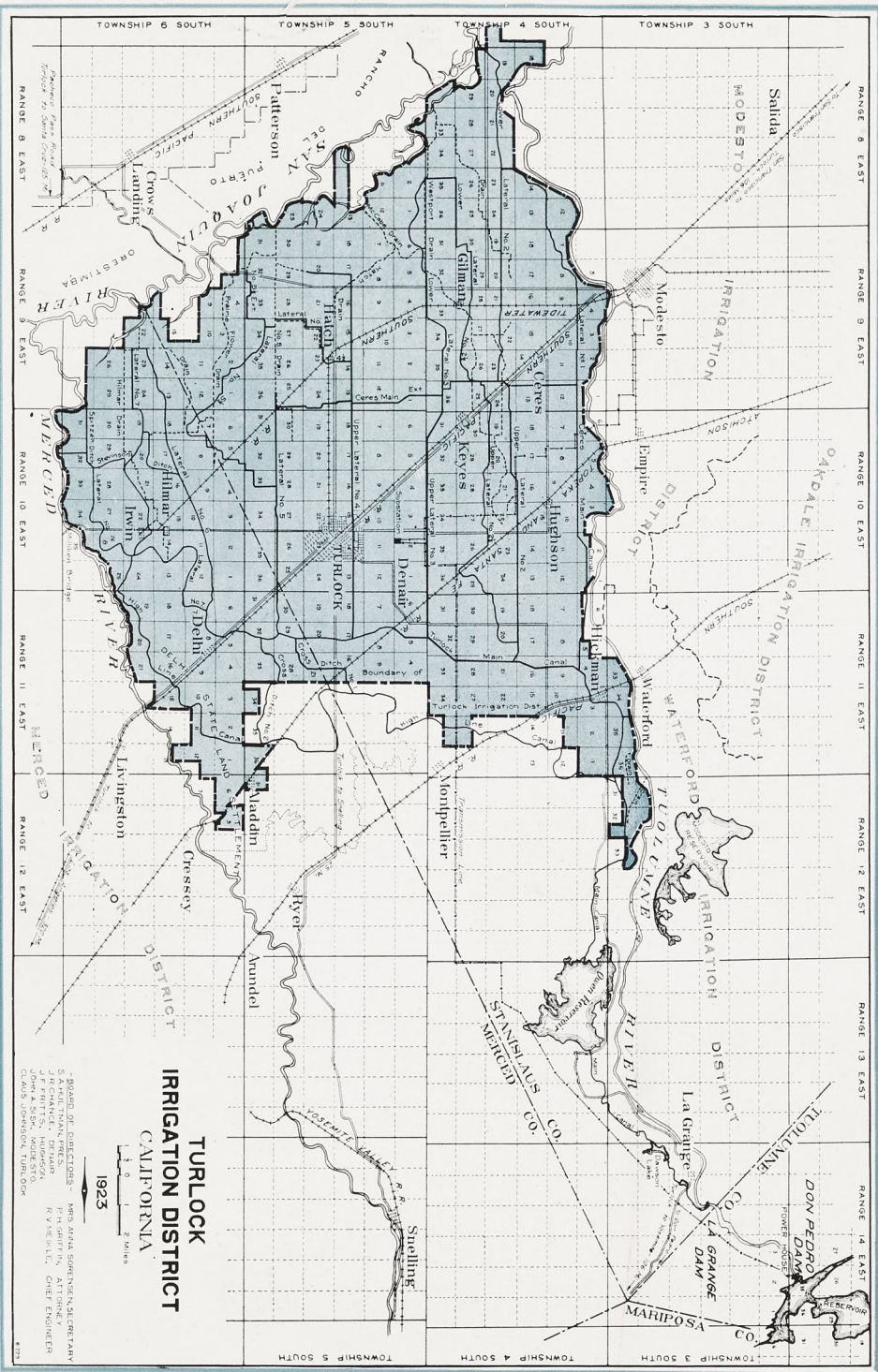


Stanislaus Co.



TURLOCK IRRIGATION DISTRICT





**TURLOCK
IRRIGATION DISTRICT
CALIFORNIA**

1923

BOARD OF DIRECTORS - PRES. ANNA SORENGEN, SECRETARY
J. C. CHANCE, CHAIRMAN
J. A. FRITTS, HIGGINS
R. V. BROWN, JR., ENGINEER
CLAUDE JOHNSON, TURLOCK

TURLOCK IRRIGATION DISTRICT, CALIFORNIA

YEAR	NUMBER OF PARCELS OF LAND OWNED BY TAXPAYERS	ASSESSED VALUATION	BONDED INDEBTEDNESS	TAX RATE	TOTAL TAX	INTEREST ON BONDS	IMPROVEMENT AND CONSTRUCTION PROVIDED BY TAX	MAINTENANCE AND GENERAL EXPENSE PROVIDED BY TAX	MAXIMUM FLOW IN LA GRANGE SECOND FEET	TOTAL FLOW ACRE FEET	ACRES IRRIGATED	GROSS DUTY FEET	RAINFALL INCHES
1888					12,466.30								9.18
1889					20,002.38	12,858.67							19.29
1890					36,825.64	25,041.43							8.69
1891					36,149.57	30,365.64							11.83
1892					36,144.46	36,144.46							14.44
1893					40,855.51	40,855.51							12.18
1894					34,885.09	34,885.09							15.21
1895					42,816.65	42,816.65							11.09
1896					42,248.48	42,248.48							13.00
1897					43,809.42	43,809.42							4.62
1898					53,911.20	53,911.20							9.19
1899					65,016.43	65,016.43							11.60
1900					65,638.28	65,638.28							14.89
1901	401	1,778,589	1,170,000	2.40	40,766.40	40,766.40					37.57		9.75
1902	440	1,787,487	947,200	4.65	83,018.56	58,054.09	7,153.82	28,375.13			7,000		12.28
1903	575	2,321,898	1,131,600	4.35	10,097.92	58,509.64	9,238.35	48,456.08			8,763		9.64
1904	788	2,993,538	1,184,600	3.30	98,786.78	68,587.85		37,226.62	524		12,000		14.66
1905	1,009	3,560,835	1,248,600	3.10	110,385.89	55,192.95	13,657.42	51,423.36	556		21,000		16.43
1906	1,247	3,545,630	1,254,200	3.40	120,551.42	63,821.34	16,526	61,758.99	637		32,587		17.28
1907	1,488	4,349,835	1,302,000	3.00	130,495.05	70,467.33		45,753.33	725	19,678.8	4,780.3	4.12	8.00
1908	2,043	4,867,040	1,297,000	2.80	136,277.12	77,872.64	7,150.84	60,319.18	796	204,212	49,871	4.09	12.15
1909	2,565	5,236,925	1,308,700	3.15	164,963.14	70,697.49	4,236.94	93,162.26	921	238,530	51,940	4.59	11.67
1910	2,900	5,515,900	1,356,400	2.15	204,591.84	80,885.10	59,335	154,150.03	847	140,648	64,798	2.17	14.31
1911	3,255	9,308,000	1,545,160	2.62	243,949.60	82,887.20	72,865.24	92,817.16	1,030	301,292	71,106	4.24	7.72
1912	3,785	10,058,845	1,903,720	2.40	241,149.245	85,568.59	76,063.64	81,860.22	1,060	250,240	79,916	3.13	5.48
1913	4,579	10,158,245	2,286,800	3.55	360,617.69	123,930.59	141,104.26	95,582.84	1,140	304,074	85,062	3.57	15.97
1914	4,999	10,159,645	2,302,400	3.65	370,954.54	134,234.82	125,931.94	110,787.78	1,580	210,318	94,000	2.25	17.01
1915	5,189	9,877,760	2,575,200	3.70	365,604.64	130,513.95	105,375.71	129,714.98	1,613	343,211	95,698	3.60	14.31
1916	5,340	9,783,685	2,575,200	3.10	303,527.15	129,317.03	71,760.60	102,449.52	1,660	402,217	89,049	4.51	8.43
1917	5,520	9,760,620	2,637,000	3.65	356,393.04	131,898.78	126,564.55	97,929.71	1,681	423,159	97,257	4.35	9.74
1918	*4,992	9,745,170	2,662,000	3.75	365,492.18	134,480.68	118,487.32	110,523.98	1,701	324,779	101,235	3.23	12.26
1919	5,220	12,084,345	2,662,000	3.40	410,906.03	134,174.53	154,779.50	121,195.20	1,750	303,560	101,419	3.00	9.43
1920	5,491	12,026,925	3,432,000	4.60	553,238.55	135,917.00	265,732.76	151,588.79	1,770	376,983	103,407	3.64	15.14
1921	5,923	12,094,910	5,742,000	5.00	604,700.00	315,350.00	127,076.27	182,273.73	1,800	377,011	105,461	3.68	13.72
1922	6,396	11,920,345	6,710,000	5.60	667,376.82	431,020.00	51,405.55	181,943.27	1,815	366,742	105,665	3.47	14.78
1923	6,684	13,366,355	6,650,000	4.50	601,485.96	431,733.26			1,840	498,689	110,746	4.53	
1924													
1925													

* NUMBER OF TAXPAYERS

WATER 1922-23 = 14.78

9009

STATE OF CALIFORNIA

Department of Agriculture

G. H. Hecke, Director
Sacramento

Sacramento, Calif., March 21, 1923.

The Turlock district of California requires very little introduction to the prospective purchaser of a ranch, whether for the growing of fruits and grain, or for dairying and cattle raising.

The extensive acreage, with Turlock as a center, is peculiarly well adapted to all forms of agricultural pursuit. It is my opinion that the Turlock district has made steady, sound, substantial growth over a period of many years, and has been remarkably free from inflated land values, such as were unfortunately created in some other sections of our state.

The Turlock district is learning by experience to eliminate from its catalogue of production those items which proved unprofitable to the farmer, and today a well balanced, stabilized industry is in evidence here. The future should assure even to a greater degree, prosperity and continued vigorous growth to this portion of our great State.

G. H. HECKE, Director of Agriculture.

NOWHERE in California will the tiller of the soil find better opportunities to gain a competence amidst comfortable and pleasant living conditions than in the great San Joaquin Valley—"The Garden of the Sun"—and the TURLOCK IRRIGATION DISTRICT, one of the best known and largest in this country, is among the most fertile spots of this world known Sun Garden which is more than 250 miles long and 50 miles wide.

Here the prospective settler will find soil, climate, water, transportation and market conditions as nearly ideal as attain in United States and the result is that a failure is rare among the mentally and physically diligent settlers in the TURLOCK IRRIGATION DISTRICT which Nature's bounties, abetted by the efforts of man, have turned into a region of garden farms.

For Facts Write the Chamber of Commerce,
Turlock, California



Panoramic View of Portion of Turlock's Business Section

HISTORY The history of the TURLOCK IRRIGATION DISTRICT, 126 miles southeast of San Francisco, is one of romance—the romance of achievement—from the days of the early fifties when the pioneers of this section were feverishly engaged in digging for gold in the foothills of the Sierra Nevadas to the east of TURLOCK down through the years to the present when it is one of the best known and most prosperous irrigation districts in the United States. The history of Stanislaus County and the TURLOCK IRRIGATION DISTRICT is naturally divided into three major parts—the days of gold, the pre-irrigation period, when cattle and grain raising were the chief industries, carried on by ranchers whose holdings included thousands of acres, and the present period, that of post-irrigation.

Some forty years ago, more and more thought began to be given to the advantages which might accrue to this section as a result of irrigation. Overcoming almost unsurmountable difficulties of opposition the pro-irrigationists finally won the fight with the result that the TURLOCK IRRIGATION DISTRICT was the first formed in California under the Wright Act, and the first water became available for this purpose in 1901 when 3,757 acres were irrigated. Today, the TURLOCK IRRIGATION DISTRICT consists of 181,490 acres of which over 100,000 are actually irrigated, or about 60 per cent of the entire area, by means of some 250 miles of main canals and laterals and 1000 miles of sub-laterals and community ditches. This has meant to the TURLOCK IRRIGATION DISTRICT three things: First, a rehabilitation of agriculture; second, an extension of the farm area of pre-irrigation days, and third, a remarkable increase in the variety



Panoramic View of Portion of Turlock's Business Section

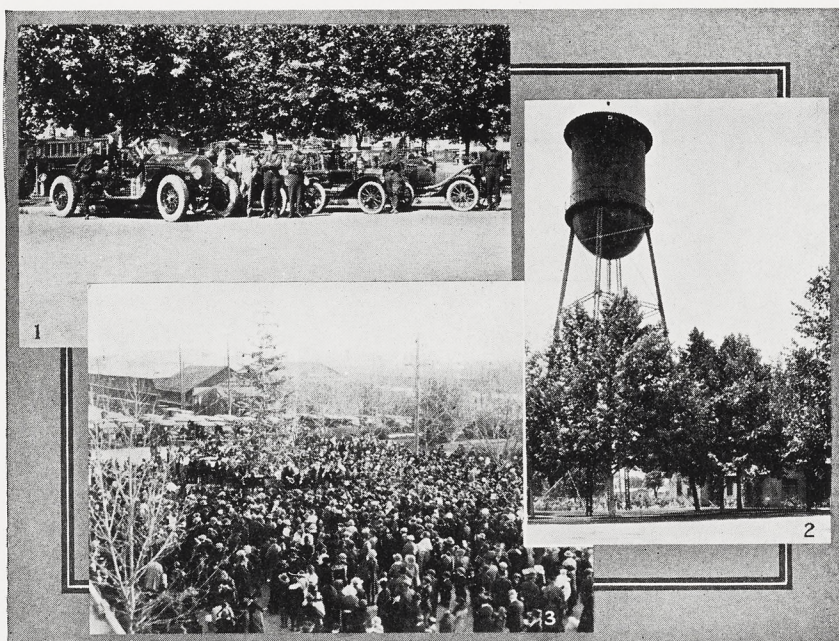
of products so that for the post-irrigation period the list covers alfalfa, beans, cantaloupes, casabas, watermelons, non-saccharine sorghums, garden truck, tomatoes, sweet potatoes, grain, peaches, figs, apricots, hogs, grapes, dairy, poultry and cattle products.

TURLOCK Two decades ago a passenger on a Southern Pacific train passing through TURLOCK gazed upon a struggling hamlet of some 150 souls seemingly located in the center of a vast and unattractive Sahara of drifting sand.

It was, however, the heart of a sleeping agricultural giant. Water broke the spell of somnolence and the sections of large ranches and lonesome uninhabited stretches were turned into a rich community of small farms whose products are favorably known throughout the land.

During these years TURLOCK, which is the center of this famed district, has progressed from a miscellaneous collection of shacks to a bustling city of the sixth class with a population of 4,700, the prosperity of TURLOCK simply being a reflection of that enjoyed by the agriculturists of the IRRIGATION DISTRICT.

TURLOCK is an as attractive small city as will be found in any of the farming communities of California. On account of the fact that it is a trading center for the agricultural district surrounding it on all sides, the development of TURLOCK in a business, educational and religious way is far beyond what might be expected in a municipality of its size. It has grown along these lines to the point where, if it were purely a suburban community without outside districts to draw from, its development would serve a community of 10,000 souls.



(1) Fire Department (2) Part of Municipal Water Plant
(3) Municipal Christmas Tree

LOCATION TURLOCK is the second largest city of Stanislaus County, California, and is situated on the San Joaquin Valley route of the Southern Pacific, 126 miles southeast of San Francisco. It is also the southerly terminus of the Tidewater-Southern Railroad, which connects it with Stockton and three transcontinental routes at that point, the Western Pacific, Atchison, Topeka & Santa Fe and the Southern Pacific. The Santa Fe's main line also traverses the district at Denair, four miles east of TURLOCK.

MUNICIPAL IMPROVEMENTS TURLOCK is well and favorably known for the character of its civic improvements. The municipality uses the city planning idea advantageously and has developed a well planned and constructive system of highways which has resulted in its mileage of paved streets being increased each year. At the present time it has 25 miles of paved streets and a paving program under way which calls for large additional expenditures annually.

Municipal ownership in TURLOCK finds its expression in two notable instances—the water and sewage plants with their respective collective and distributive systems.

An unlimited supply of soft water is obtained from thirteen wells located at three strategic points in the city. The water, which is of excellent quality, is pumped from an average depth of 80 feet by electric pumps being lifted to three enormous steel tanks of 65,000 gallons capacity each, furnishing the city with more than is required at all times. The system has never had its capacity overloaded. The service rate is low—\$1 a month as a flat rate and 8 cents a thousand gallons for heavy consumers using in excess of 50,000 gallons a month. The water plant represents an investment of \$87,500.00.

Sewage is disposed of through efficient and hygienic means on an acreage site secured for that purpose on the outskirts of the city.

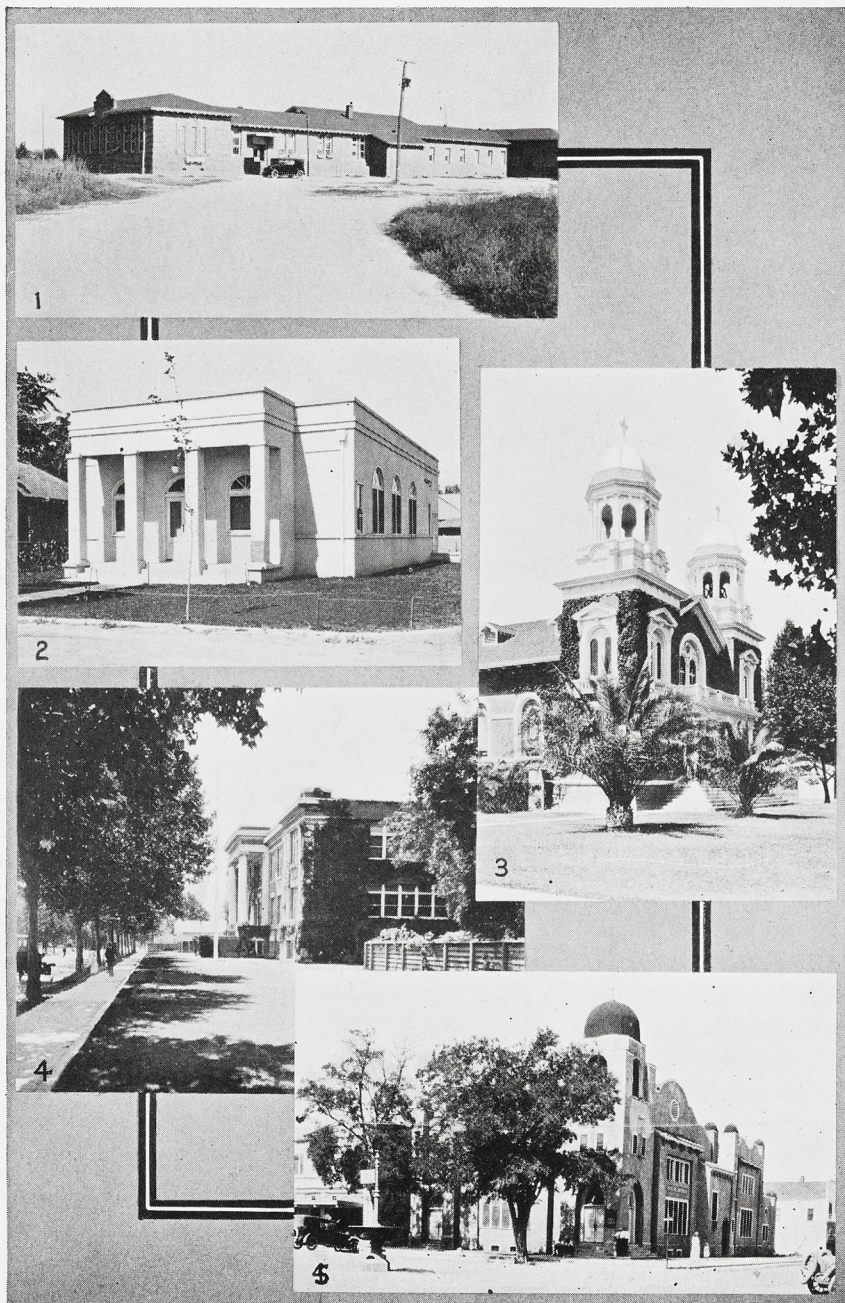
TURLOCK has adopted the city planning idea, results already being shown in the five attractive parks, twenty-two acres in size, and the ordinance regulations governing industrial and residential construction activities.

There is in addition a privately owned gas plant which is capable of supplying the needs of a community of 10,000 people.

PUBLICATIONS TURLOCK is the publication point of three progressive papers which would be a credit to many larger communities. The Journal, an afternoon daily, the Tribune, tri-weekly, and California, Swedish weekly, are issued from local plants.

THE RELIGIOUS LIFE The religious life of TURLOCK is particularly strong, a large number of denominations, some twenty in all, are represented, and practically all own their houses of worship. Stanislaus County has the honor of having been selected as one of the counties most representative of rural regions of America in its religious problems and life, which were extensively covered in a survey made by the Committee on Social and Religious Surveys in 1922 and issued under the heading of "Irrigation and Religion." The various activities that are correlated with churches, including missions and societies, are all as active and popular as their parent organizations.

SOCIAL AND FRATERNAL LIFE The social and fraternal life of the city is very active. In addition to small clubs, usually gatherings of friendly neighbors, for the enjoyment of cards, music or dancing there are three larger organizations, the Turlock Club, a business men's social organization, American Legion and the Business and Professional Girls' club. Among the fraternal



(1) Turlock Union High School (2, 3 and 5) Local Churches
(4) A Turlock Grammar School

organizations all of the leading orders are represented, their meetings and entertainments affording needed opportunity for social and fraternal intercourse.

CIVIC ORGANIZATIONS

The outstanding civic organizations, include the Woman's Club and the Chamber of Commerce whose members are active in working for the best interests of the city and the IRRIGATION DISTRICT.

EDUCATIONAL

Two grammar schools and a union high school form the present school equipment of TURLOCK, which has been particularly fortunate in the caliber of teachers employed for a number of years past. The growth in attendance of the schools has been so rapid in the last few years that additional housing facilities have been found necessary and are now being provided.

At the present time there are 1200 grammar school pupils with a force of 38 teachers, and 609 high school students with 27 instructors. In addition to the usual courses that are given, a large number of special and domestic science courses are provided for in both grammar and high schools. TURLOCK'S educational facilities are as embracing and satisfactory as will be found in any similar community in the state.

In addition the city has a Carnegie Library of pleasing architectural appearance which contains 6,000 volumes.

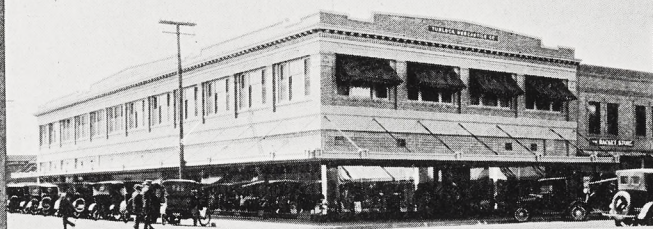
TRANSPORTATION FACTORS

As previously mentioned three railway transportation systems serve TURLOCK, and the TURLOCK IRRIGATION DISTRICT — the Southern Pacific, Santa Fe and Tidewater-Southern. Although these railroads carry the largest percentage of passenger and freight traffic, there is also an increasing number of passengers moved by the motor buses of the California Rapid Transit Company, and tonnage carried by the motor freight trucks of the White Company or similar concerns. Stanislaus County is conceded to be the second county in the United States, and possibly the first, in paving mileage, and the TURLOCK IRRIGATION DISTRICT is, therefore, gridironed with good roads of the most permanent character.

The result is that much of the produce raised on the farms which surround TURLOCK on all sides is moved to nearby cities by motor truck over the IRRIGATION DISTRICT'S fine roads which connect with the State Highway running through TURLOCK from San Francisco to Los Angeles.



1



2



3



4

(1) Emanuel Hospital—A Modern Institution (2) Mercantile Establishment
(3) A Local Bank (4) Carnegie Public Library

INDUSTRIAL ADVANTAGES AND OPPORTUNITIES

To manufacturers whose products are of particular interest to the agriculturalist, TURLOCK offers many advantages as the farmers of this section have always shown themselves eager to secure the best in the way of mechanical equipment to assist their labors.

TURLOCK'S location is such that it is a natural distributing point for a large portion of the San Joaquin Valley, and should particularly have the consideration of producers of specialties. Manufacturing sites with spur track facilities can be purchased at low cost. Labor is plentiful, particularly for light manufacturing work, and the TURLOCK IRRIGATION DISTRICT, through power developed at Don Pedro Dam, will undertake to give manufacturing enterprises using from 500 KW upwards as cheap or cheaper power rates than they can secure anywhere else in the state. Among the industrial enterprises now located here are a large cannery, cured sweet potato plant, peach and fig packing house, raisin packing house and ice and cold storage plant.

INVESTMENTS

The investor will find opportunities here along these lines, as well as in city and country real estate, that will prove worthy of his closest consideration for TURLOCK and the TURLOCK IRRIGATION DISTRICT are no longer an experiment but a proven territory with the best backing in the world—a wealthy district of small farms.

FINANCIAL

The banks of the city, well housed and progressive, are the First National, with which is affiliated the Commercial Bank, Peoples State Bank and Security State Bank. The combined deposits of these institutions are indicative of the community's growth, running from \$293,000 in 1906 to \$2,750,000 in 1919 and being \$4,000,000 at this time.

SPORTS

For the lover of sports and particularly the adept with gun or rod TURLOCK has many attractions. Along the Tuolumne, San Joaquin and Merced rivers can be found in season the best duck shooting in the state, while the fields within a few miles of the city will give the limit of quail or doves to the marksman. Bass, salmon, shad and catfish are abundant in the rivers mentioned and their creeks, while a motor ride of 40 miles into the Sierra Nevadas or the Coast Range will place the searcher for larger game, particularly deer, where it can be found, or on the banks of creeks that will fill the creel of the fly fisherman with wonderful mountain trout.

CLIMATIC AND HEALTH CONDITIONS

"The climate of this area is characterized by a rainy winter season and a dry summer season. The winter days usually are rainy, cloudy or foggy, and cool, but some bright, warm days are interspersed; the summer is marked by practically cloudless days, low humidity, and high temperature. The winter season commonly is considered as extending from November to April, although there are wide variations in the duration of the rainy period."—Reconnaissance, Soil Survey, U. S. Department of Agriculture.

In summer, although the temperature often rises above 100 degrees there is no humidity and sun stroke is unknown. Regardless of how warm the days are in summer, the nights are invariably cool and comfortable.

"To those who are looking for a mild and healthy climate, having fewer disagreeable features than the majority of other locations, I can without prejudice recommend the **TURLOCK IRRIGATION DISTRICT**.

"My observations as health officer for two years have given me an excellent opportunity to study conditions; and with the exception of our two influenza epidemics we have had little else to contend with. We have no malaria, and tuberculosis is rare and almost invariably contracted elsewhere.

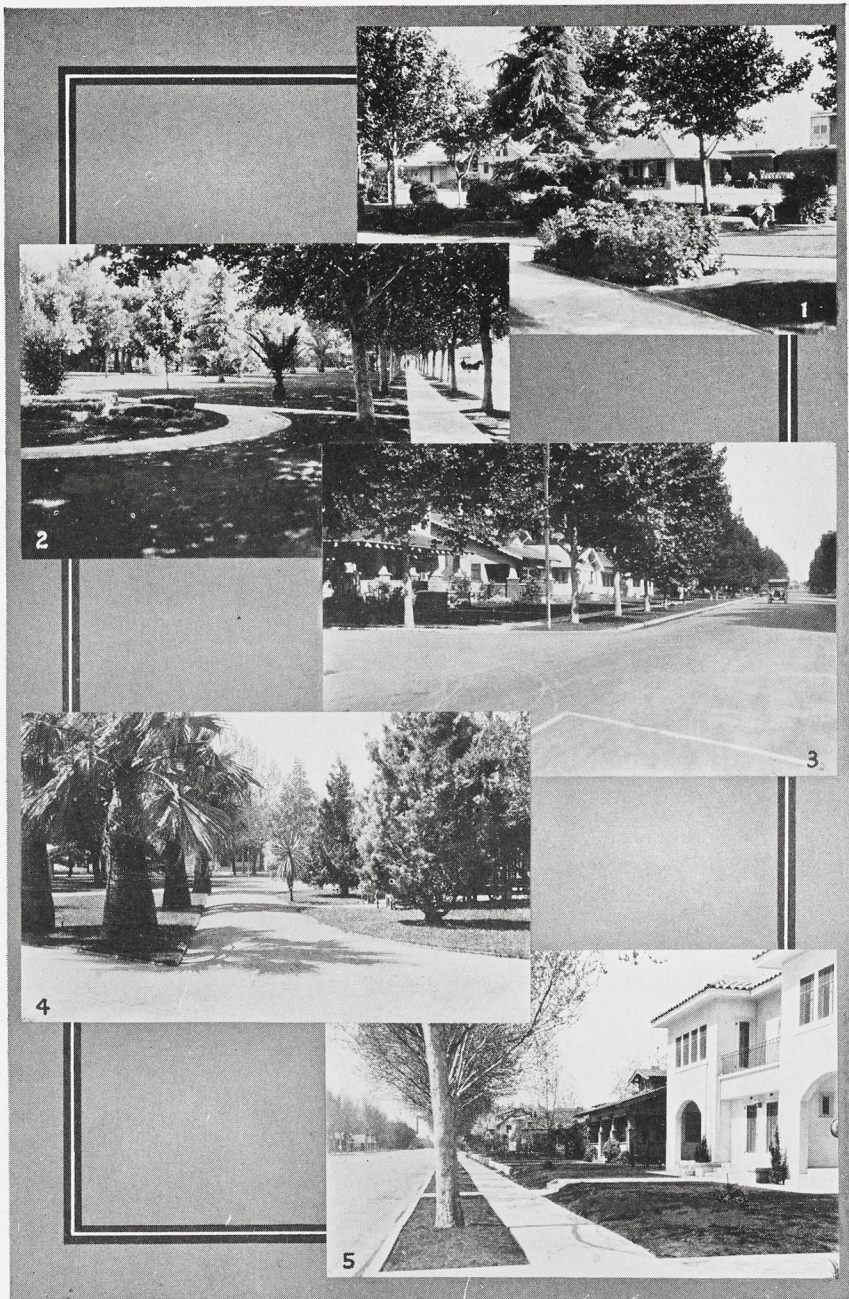
"Climatic and health conditions, I feel, are as nearly ideal as can be obtained."—Statement made by Dr. C. E. Pearson, health officer of **TURLOCK**.

HISTORY OF IRRIGATION DISTRICT

The history of the **TURLOCK IRRIGATION DISTRICT** dates back to 1887 when it was organized under what is known as the Wright Act. The first Board of Directors, men of vision, meeting in a small wooden shack, visualized a region of small productive farms in the dreary waste that then surrounded them, and this vision has been realized beyond their dreams. Almost unbelievable changes in agriculture, population, farm output and town prosperity, due to the putting on of water, have followed.

An engineer was appointed, plans for a diverting dam at La Grange on the Tuolumne River in the Sierra Nevada foothills east of **TURLOCK** developed as well as for a main canal and necessary distributing laterals.

In 1890, the Modesto district joined with the **TURLOCK IRRIGATION DISTRICT** in the erection of this dam which was completed in 1893. Then followed years when the work progressed slowly on



(1, 2 and 4) Turlock Parks Are Many and Beautiful
 (3) Bungalows Enhanced by Well Kept Gardens
 (5) Turlock Has Attractive Residences

account of expensive litigation, and it was not until 1899 that water was turned into the main canal, the first irrigation coming in 1901 when 3,757 acres were irrigated.

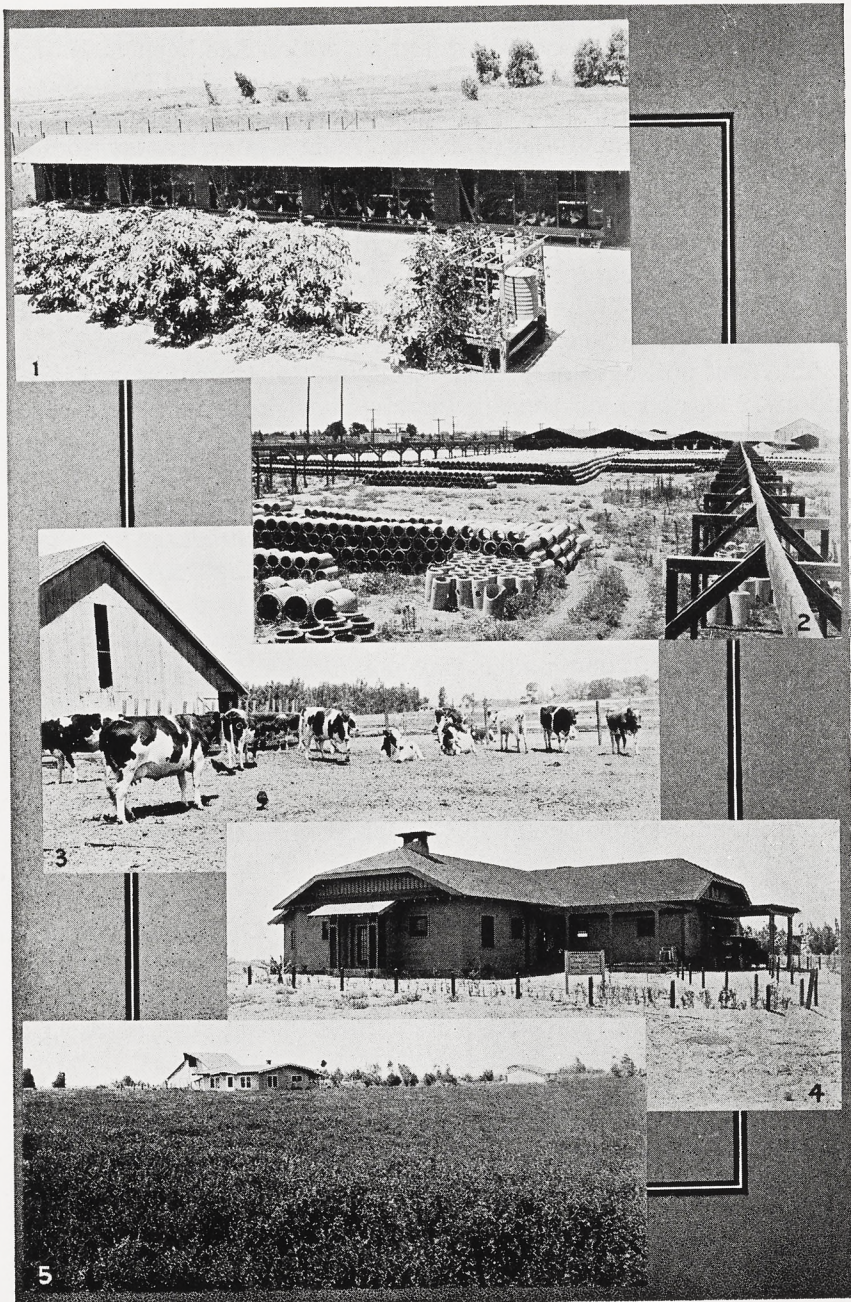
LOCATION Because of its extensive area the TURLOCK IRRIGATION DISTRICT is spread out into two counties, the southern portion of Stanislaus and the northern portion of Merced, the majority of it being in Stanislaus County. Its boundaries are roughly outlined by the Tuolumne river on the north, the San Joaquin river on the west and the Merced river on the south with the easterly limits marked by rolling grain land which could not be irrigated except at an insuperable expense.

SIZE The TURLOCK IRRIGATION DISTRICT contains 181,490 acres, and is 23 miles long at its greatest length, its maximum width being 18 miles. Of this total acreage 110,746 acres were actually irrigated in 1923.

GROWTH TURLOCK is one of the irrigation districts of which an accurate economic survey has been made. Guesswork as to the effect of irrigation and its value has been eliminated. Before irrigation was introduced there were 140 farms in the district whose average size was 1,250 acres. Today there are 4,200 farms averaging 40 acres. The TURLOCK IRRIGATION DISTRICT'S first bond debt was assumed by less than 100 assessment payers while today there are 6,396 taxpayers on its assessment rolls. The population of the district before irrigation was 950 people, while today there are very close to 17,000.

Before irrigation the net annual production of this section amounted to \$202,000, while now the same land with water and more intensive agricultural methods produces crops having a net annual worth of \$5,000,000.

Increased production under irrigation in the TURLOCK district has enabled the people to pay off old mortgages, equip anew 4,200 ranches, to buy back for their own investment almost \$1,156,000 of the original issues of bonds, to pay almost \$2,908,000 in interest on the bonds, to invest another \$1,895,000 in its irrigation system by direct assessment for construction, maintenance and operation and to pay off on January 1, 1923, their first bonds to become due.



(1) Delhi Settlers Raise Fine Poultry. (2) Concrete Irrigation Pipe Factory at Delhi State Land Settlement. (3) Contented Cows Bring Steady Returns at Delhi. (4) Wilson Hall—Delhi's Community Center. (5) Heavy Alfalfa Crop at Delhi

STATE LAND SETTLEMENT

In considering the growth of the TURLOCK IRRIGATION DISTRICT special thought should be given to the progress which has been made by the State Land Settlement at Delhi, six miles south of TURLOCK.

This tract of land which includes 8,500 acres was selected by the State Land Settlement Board in 1920 from eighty tracts which were offered for consideration throughout all parts of California for the purpose of a state land settlement, the selection being made after careful examination and appraisal of soil and water conditions by representatives of the College of Agriculture of the University of California, the United States Department of Agriculture and the State Engineer's office.

The first unit of land in the State Land Settlement was offered for sale in 1920, at which time it was an unattractive waste of drifting sand with nothing to intrigue those who could not see into the future. Since then a very complete irrigation system has been installed, and today 271 families are occupying farms ranging from 2 to 175 acres in the settlement. During 1922 \$350,000 worth of buildings were erected there, or an average of one for every one and a half working days.

The settlement is one of California's projects for the purpose of obtaining settlers on what was formerly barren land, and the project has been carried out under the plans which were developed by Dr. Elwood Mead of the University of California. Peaches, apricots, almonds, grapes, melons, sweet potatoes and garden truck are the principal crops, while poultry raising and dairying are carried on in a very intensive manner. The state renders every assistance to the settlers in addition to the advice which is given by federal, state and university authorities on crops and cattle. The land is sold for 5 per cent of the cost, the settlers having thirty-six and a half years to make the remaining payments if they so desire. When improvements have been made the settler pays 40 per cent in cash and the remainder may be spread over a period of twenty years. Applicants for allotments in the State Land Settlement must be citizens of the United States or have declared their intention to become so.

The progress which has been made at the State Land Settlement in a short space of time is impossible of realization without a personal inspection trip.

CHARACTER OF SOIL The topography of the TURLOCK IRRIGATION DISTRICT varies from level to slightly rolling, and is made up of nine soil types including various kinds of sandy loams, sands and loams. This intermingling of soil types which are of a sandy nature results in a soil which is worked easily, so fertile that crops mature quicker and evenly, and which can be rapidly and thoroughly irrigated. Soil classification follows:

	Acreage	
Excellent	99,820	55 per cent
Good	45,372	25 "
Fair	25,409	14 "
Poor (alkaline)	10,889	6 "
Total	181,490	100 "

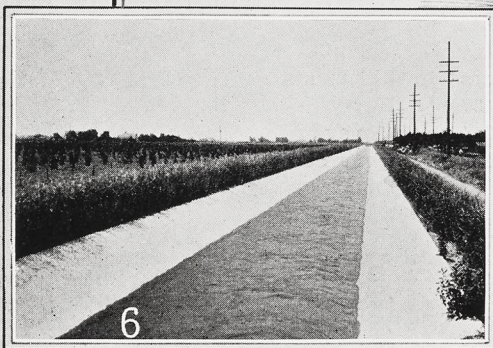
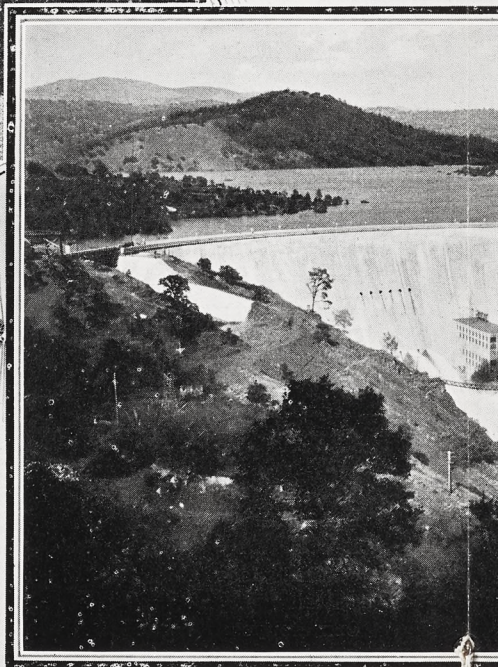
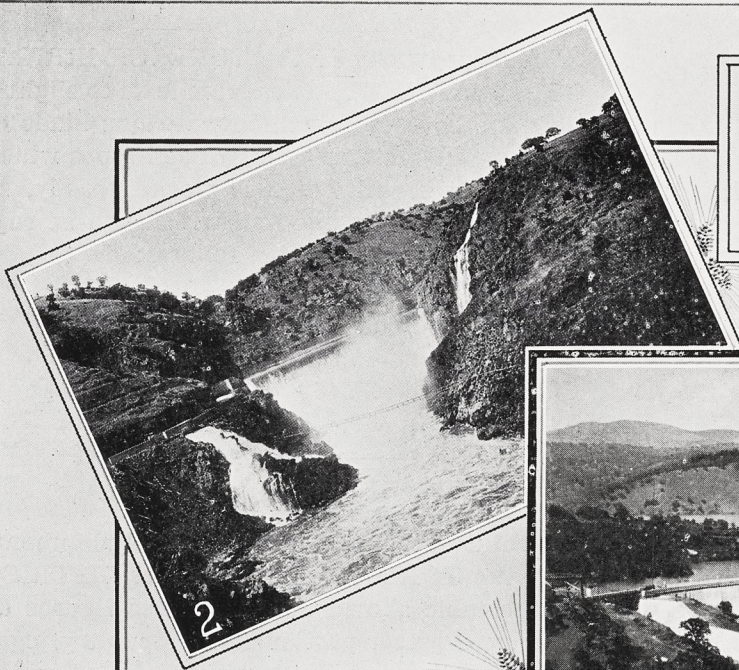
CROP SHIPMENTS The total outbound freight carload shipments from the TURLOCK IRRIGATION DISTRICT during 1922 are given in the table shown below. These figures do not include the movement by express, particularly of poultry, eggs and meat, and the vast tonnage moved by motor trucks of which there is no record.

Shipments	Cars	Shipments	Cars
Apricots	37	Hay	8
Barley	214	Honey	1
Beans	132	Honeydews	73
Box shook	12	Lettuce	10
Boxes	16	Live stock	112
Canned goods	186	Lumber	2
Cotton	1	Oats	30
Cantaloupes	1957	Peaches	169
Casabas	671	Persian melons	63
Concrete pipe	2	Raisins	10
Corn	171	Rye	3
Christmas melons	4	Sweet potatoes	394
Dried fruit	77	Squash	2
Feed	2	Watermelons	1921
Flour	1	Wheat	23
Grain	4	Wool	2
Grapes	885	Miscellaneous	79
		TOTAL	7274

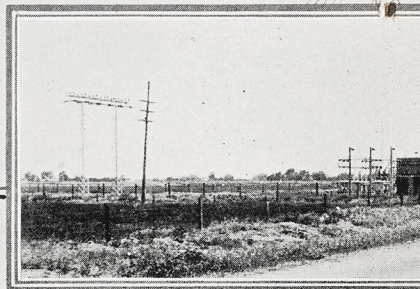
HOW LAND IS USED Every year ditch tenders of the TURLOCK IRRIGATION DISTRICT interview all of the farmers in the district for the purpose of ascertaining what crops they will plant. The forecast for 1923 follows: (See page 18)

Sources of Water

1. Don Pedro
2. La Grange
3. Owen Falls

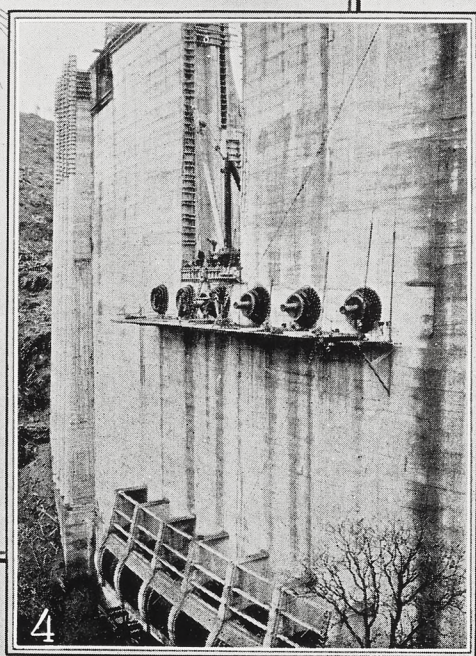
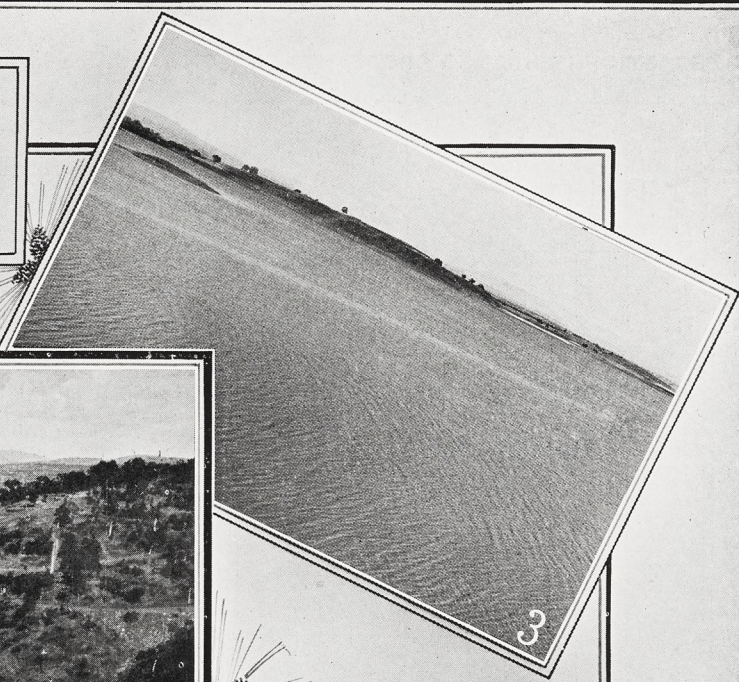
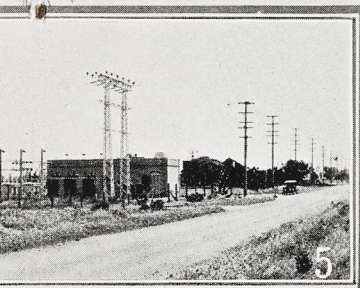
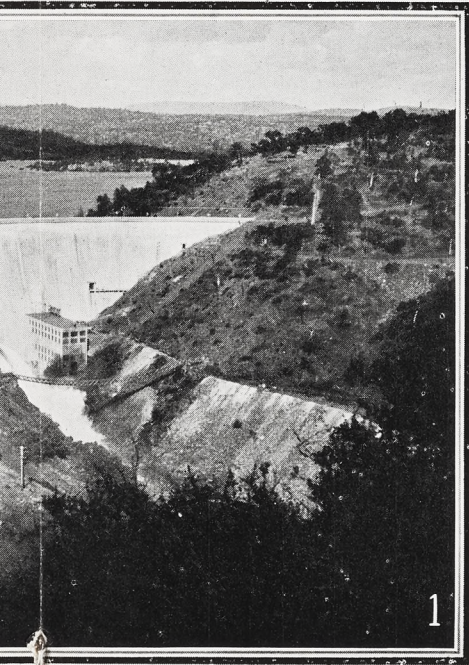


4. Don Pedro During Construction
5. Power from Don Pedro
6. Typical Irrigation Scene



Water Supply

Pedro Dam
Range Dam
Reservoir



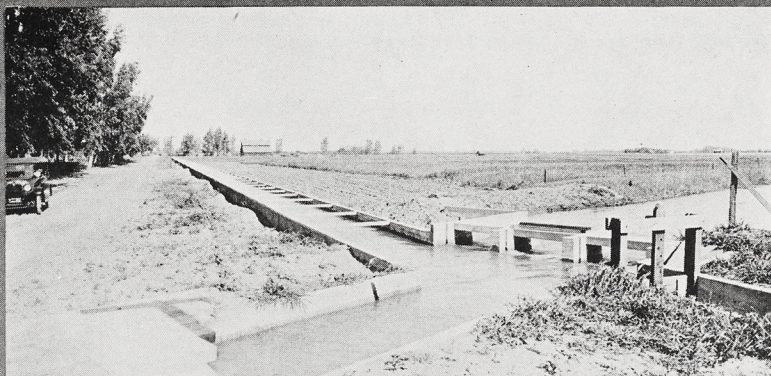
FORECAST OF IRRIGATED CROPS, 1923 SEASON (Net Area in Acres)

Alfalfa	Beans	Beets	Sunflowers	Cantaloupes	Casabas	Corn	Garden	Grain	Pasture	Sweet Potatoes	Trees	Vines	Water-melons	Total Acres Irrigated	Total Acres Second Crop
1347	221	5				674	14	632			369	250		3512	450
	169					281									
2625	450	17				146	21	1088		23	1482	726	5	6583	935
	844					79		12							
253	93					21		189			463	270		1289	119
	118										1				
1369	1189	2				214	74	963			1247	1505		6563	415
	314					101									
964	411	2			2	42	22	432		56	1330	729	44	4064	271
	255					16									
2511	841	22		2	24	354	1	1093		102	174	524	139	5787	683
70	524	7				82									
1895	350	10			5	77	6	588		45	7	769	7	3759	396
	214					99		3	80						
608	468	134		2		119	1	337		5	26	592		2292	311
	165	9				111		26							
1666	748			55	32	689	6	900		30	52	383	16	4577	279
40	181					58									
1886	994			5		595	13	1179		35	179	721	27	5634	428
7	262					159									
1235	402			491	183	430	62	478		231	551	583	85	4731	139
	86					42									
2008	548			85	22	364	10	531		213	613	436	159	4989	362
	253	5				97	7								
2135	915			314	114	280	353	572		527	356	858	445	6869	500
	408			5		86									
1844	1321			753	195	1369	108	715		611	243	714	185	8058	474
	378				4	92									
1411	455	7		433	87	733	324	684		64	135	968	26	5327	107
	56	6		10		35									
2109	357			404	165	721	45	1197		211	224	853	73	6359	524
	209				17	298									
1372	552	2		38	21	1131	11	369	285	48	15	169	14	4527	140
	25					115									
1225	100			38	28	566	18	418		195	119	320	49	3076	266
	49					217									
2039	550			3	11	657	77	984	309		68	261	7	4966	320
	71					248		1							
1836	880				2	941	13	803		5	207	643	19	5349	286
	187					99									
658	81			20	32	217	2	238		347	42	214	59	1910	54
	25					20		9							
2810	872		66	24	8	1189	3	108		131	1150	772	10	7143	30
	27					3									
1200	633					481	24	482		31	115	409	7	3382	312
	260					52									
37006	13431	201	66	2667	931	12010	1208	15480	594	2910	9196	13670	1376	110746	
117	5081	27		15	32	2390	7	51	80		1				7801
33.5	12.1	0.1	0.06	2.5	0.8	10.8	1.1	13.9	0.5	2.7	8.3	12.3	1.3	100	

NOTE—First line of totals, 37006, etc., represents "total acres irrigated."

Second line, 117 etc., represents "second crop."

Third line, 33.5 etc., represents percentages.



(1) A Usual Turlock Irrigation District View
 (2) Display of Garden Truck from Turlock Irrigation District
 (3) Cows of Pedigree Rule Here—The First Dairy County in California

WATER To lead the magic touch of water to the thirsty land was the dream, the labor and finally the achievement of the pioneers of the TURLOCK IRRIGATION DISTRICT. Their foresight—bountiful crops in years to come—has ever been followed as far as human agency can contrive. The deadly breath of drought need never be feared by the farmers of this section.

The TURLOCK IRRIGATION DISTRICT'S water rights are all on the Tuolumne river where the three storage projects of the district are located. These rights are assured in perpetuity by the fact that the district has secured some original rights which have been further confirmed by Congressional grants.

Water is secured from three projects, the La Grange Dam, the Owen Reservoir and the immense Don Pedro Dam just completed. The La Grange Dam, constructed of granite rock and concrete and completed in 1893 at the cost of \$543,164, was the first irrigation dam in the west and was for many years the largest overflow dam in the world. It is 127 feet high, 301 feet long and 83 feet wide at the bottom, and for over two decades has diverted the flood waters of the Tuolumne river into two huge canals each with a carrying capacity of 5000 second feet of water and bringing an era of prosperity to the ranchers and business men of this section.

The stored water of the District is held in the Owen Reservoir which has a capacity of 48,000 acre feet and which was completed in 1914 at a cost of \$500,000.

During high water seasons much water was wasted at La Grange Dam as the canals were not large enough to take care of the overflow. A need of late irrigation in August and September was felt and it was estimated that by these irrigations millions of additional dollars would be brought to the farmers of the TURLOCK IRRIGATION DISTRICT annually. Accordingly another type of dam, one which would act as a storage dam, was advocated, and this dam—Don Pedro—is now an accomplished fact at the site selected for it on the Tuolumne river a few miles above the initial project of this sort which was built in the early 90's. The Don Pedro Dam is one of the outstanding engineering projects which have been completed in this country during the last few years. Don Pedro's construction work was actually commenced on June 25th, 1921, and was finished in February of this year, a record for work of this character and magnitude. The dam, which was built by the TURLOCK and Modesto Irrigation Districts, the latter paying one-third the cost, is 284.1 feet high; 1,040 feet long; 176.6 feet thick at the base. The structure contains 281,552 cubic yards of concrete and the spillway 15,000

cubic yards. The reservoir covers an area of 3,276 acres and has a capacity of 289,000 acre feet which means that the water that will be backed up by this structure would cover that many acres to a depth of one foot. Don Pedro is the highest dam in the world at this writing, and its complete cost was \$4,576,000.

In addition to allowing for the irrigation of more acreage thus enhancing the general prosperity it assures the farmers already in the district of water for additional irrigations giving them a better annual income. There is 15,000 KW or about 20,000 HP electrical energy generated at the dam. The power house rests on a foundation excavated from solid rock on the down stream face of the dam and is constructed in accordance with the most up-to-date engineering rules of practice. The building contains large water turbine wheels operating under a head of 260 feet, and by increasing the equipment there is a possible maximum of 70,000 HP which can be developed.

This power will be distributed by the districts themselves and as the dam's cost is born as a requirement of the irrigation system, the resulting cost of hydro-electrical development is lower than that of any other plant in the state, thus enabling the sale of energy at a very low rate.

The TURLOCK IRRIGATION DISTRICT has already completed its main transmission line which is 36 miles long from the dam to a substation six miles north of this city. The towers which carry the conducting cable of steel cored aluminum are about 52 feet high, solidly constructed of double latticed steel, and set in massive concrete foundations. The entire transmission line in all of its various details is the last word in engineering practice and completeness.

Power is already being served to farmers in the district, and used for the purpose of pumping drainage wells. These wells have been drilled in areas where the water level has risen too close to the surface usually being located near an irrigation canal for the purpose of shortening the discharge line from the pump. In a few years it is probable that a hundred of these wells will be in operation throughout the district and the pumped water can be used to supplement the irrigation supply and thus less storage water will be diverted from the La Grange, Owen and Don Pedro projects for irrigation purposes. If the same amount of water pumped from the wells was held at Don Pedro for power purposes it would generate about five times the power required. The cost of the power house and main power line to date has been \$1,080,000.



1



2



3



4

(1) Alfalfa Brings Good Returns
(3) Mammoth Pumpkins Rule

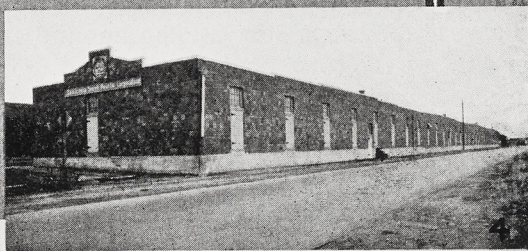
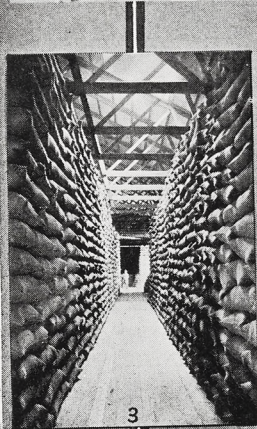
(2) A Prosperous 10-acre Farm
(4) A Real Grain Crop

PRODUCTS In considering the TURLOCK IRRIGATION DISTRICT or any other agricultural section of California the farmer or prospective farmer can forget all about delightful, inspiring scenery and the many other advantages which this state offers because of the fact that there is wide latitude of opportunity for success to the average man or woman.

According to the last census the average farm in the United States produces \$2300 worth of crops each year. California's average farm produces \$5000 worth—almost twice as much. In 1921 California farms produced \$101 worth of crops more per person than was produced in Kansas, the next highest state, and the California farmer is progressive, for there are ninety-nine automobiles for every 100 farms in the state, while every third farmer has a telephone and every fourth either gas or electricity in his home.

With irrigation and the stabilization of industry by elimination from its catalog of production those items which have proved unprofitable some startling changes have taken place in the TURLOCK IRRIGATION DISTRICT. During the pre-irrigation period the gross returns to the farmers were \$345,000, a meager showing for the acreage involved, while today the returns are well over \$10,000,000. The increase in financial ability is possibly brought home more strongly by the fact that previous to irrigation fully half of the ranches were mortgaged and that 25 per cent of them so encumbered had to be foreclosed. In the post-irrigation period there is a very different story. The encumbered ranches amount to 37½ per cent of the total, and foreclosures over a period of ten years for both mortgages and deeds of trust amounted to only 12 per year, notwithstanding the great increase in number of farms, 4,200 against 140.

FACTORIES As a result of this change in production, TURLOCK has secured a number of factories which are dependent upon the products raised in the district. Among these are the G. W. Hume Company, who operate a large cannery using a great percentage of the district's apricot, peach and spinach crops; the California Sweet Potato Corporation, who have the largest cured sweet potato plant in the world; branch packing houses of the California Peach and Fig Growers' Association, and the Sun-Maid Raisin Growers, as well as a number of wholesale shipping firms who handle a large tonnage annually of the district's varied crops.



(1) Interior of Cannery During Packing Season
 (2) Peach Growers' Association Factory—Peaches are Profitable
 (3) A Grain Warehouse—Filled to the Brim
 (4) A Sweet Potato Plant Where That Heavy Crop is Cured
 (5) Cannery Employees

RANK OF CROPS In point of importance in the district field crops rank first, followed by melons, fruit, dairy products, poultry and poultry products in the order named.

MELONS Although by no means the district's most important crop, TURLOCK melons and particularly TURLOCK cantaloupes are the best known product of this section to the world at large. There is probably not a market of any importance in the country where TURLOCK melons are not available during the season, and their uniform quality is due largely to the State Standardization Law which is rigidly enforced by inspectors on the ground at the shipping points. The superiority of TURLOCK cantaloupes and melons is due to natural soil and climatic conditions. This makes it possible to secure a diversity of crops through rotation, which is essential in order to get the best results. From alfalfa to grain hay; removing the crop in May; irrigating the land and then sowing to beans—is the procedure followed to put the land in the best possible condition for the growing of cantaloupes during the following year. After a few years of melon growing it is usually common practice to return to alfalfa in order to keep the land in best condition. Practically the entire cantaloupe crop is shipped to New York, Chicago, Philadelphia and other points outside of California, in refrigerator cars. The growth of this industry can be imagined when it is stated that it has jumped from 307 cars shipped in 1913 to 1957 in 1922. An average yield per acre is 150 standard crates and the average value of the crop per acre in 1922 was \$160.00 f. o. b. TURLOCK.

ALFALFA As might be expected from the fact that Stanislaus County is the first county in California in the value of dairy products, alfalfa is one of the favored crops in the TURLOCK IRRIGATION DISTRICT. The soil and climate are particularly adapted to it, and the high temperature prevailing during May, June and July has no detrimental effect because of the low humidity. In a similar manner the winter temperature is not sufficiently low to kill the plants. The sandy loam soils throughout the district are generally deep, a desirable feature, and as this district is very flat, square basin checks or long strip checks are the most common. Chilean alfalfa makes up by far the largest acreage although Hairy Peruvian is increasing in popularity.

From five to seven cuttings are secured annually and the completion of Don Pedro, which will allow for a longer irrigating season and a more even distribution of water, is expected to result in a greater production per acre. Each year sees a greater interest displayed in live stock and this has resulted in a noticeable increase in

alfalfa acreage. All of this crop is consumed locally, however, and finds an output only in the dairy products of the TURLOCK IRRIGATION DISTRICT. Average (1922) gross returns per acre, \$112.00.

DAIRYING Interest in blooded cattle in the TURLOCK IRRIGATION DISTRICT, is particularly strong and this applies to hogs and chickens as well as to dairy herds. Realization of the importance of good stock has increased yearly and this section has done its full share in helping the county maintain its lead as the first dairy county in California. E. E. Kaufmann, agricultural statistician of the U. S. Department of Agriculture, has found that the value per head of dairy cows in California is 50 per cent greater than the average value per head for dairy cows throughout the United States, and that the percentage in this state per head in favor of all other cattle is 35 per cent.

The result is that some of the most noted cattle holding world records for production can be found in this county, and the dairyman who will develop and maintain a high producing herd will find the TURLOCK IRRIGATION DISTRICT with its combination of sunshine, water and alfalfa, backed by superior markets, a section where higher net returns can be secured under easier conditions and more pleasant environment. The vast output of this industry is indicated by the fact that for the year ending June 30, 1920, the county produced 8,976,027 lbs. of butter fat; 9,524,986 lbs. of butter; 1,707,459 lbs. of cheese, exclusive of cottage cheese, and that for the year ending June 30, 1921, these figures stood at 9,931,685, 7,164,219, 885,276 respectively. The growth of this industry is shown by the fact that value of all dairy products produced in the county has increased from \$7,200,000 in 1918 to \$10,500,000 in 1922. Butter fat ranged in price last year from 32 to 60 cents.

POULTRY Conditions in the TURLOCK IRRIGATION DISTRICT for the poultryman are almost ideal. The sandy nature of the soil permits any excess of water to disappear quickly leaving the ground dry for young poultry, with the result that no poultryman in the business here needs to have a muddy house or yard which is so fatal to young stock.

Greens are easily grown and nearly all poultrymen have good fields of alfalfa; kale and sudan grass are also used to some extent. Throughout the TURLOCK IRRIGATION DISTRICT poultry raising both of chickens and turkeys, is carried on in an extremely intensive manner particularly on small places ranging from two to five acres in extent. This is particularly true in the State Land Settlement at Delhi, where poultry raising is particularly popular among the sett-



(1) Grapes Are Increasing in Popularity (2) Packing Lettuce
 (3) Poultrymen Have Fine Markets (4) Lunch Time
 (5) Irrigating a Money-making Peach Orchard

lers. At this time there are some 30,000 hens and pullets at the State Land Settlement alone. In turkey raising wonderful results have been secured here without use of the "free range" method, the combination of alfalfa and sunshine resulting in great savings from the losses usually sustained in turkey raising. Approximately 60,000 turkeys are shipped out of the TURLOCK IRRIGATION DISTRICT each year and at least 650,000 lbs. of chickens.

SWEET POTATOES Sweet potato culture in California requires a light sandy soil to produce clean marketable stock and the great bulk of sweet potatoes raised in this state are grown in the TURLOCK IRRIGATION DISTRICT. The acreage in this crop is increasing rapidly, being 2,700 acres in 1919 and 3000 acres this year, the demand being strong for this nourishing and delicious vegetable.

TURLOCK'S output and that of the district, about 30 miles in length, of which it is the center, practically controls the sweet potato market on the Pacific Coast. The sweet potato makes an ideal intercrop as the care necessary is about the same as for trees and vines, and the plants lying flat on the ground will not choke young trees or vines. Good land with trees and vines, if intercropped, will bear three to five crops of sweet potatoes before wearing out. Nancy Halls and Jerseys are the favorite varieties with the latter favored for curing purposes.

CALIFORNIA SWEET POTATO CORPORATION At TURLOCK is located the only sweet potato curing plant west of the Rocky Mountains belonging to the California Sweet Potato Corporation which is the largest in the world, having a capacity of 180 carloads of sweet potatoes. The California Sweet Potato Corporation owns the patent rights of the Wells Curing System for California, which is used in many plants in southern states. Through the plant spring markets in California are supplied which formerly received their potatoes from curing plants in southern states.

Cured sweet potatoes can not be told from fresh except by experts. They are not dried, the process simply consisting in removing 2 to 5 per cent of the moisture by piling in bins and applying warm air, the potato after sweating being gradually cooled and kept at an even temperature from 50 to 55 degrees. In this way the curing process accomplishes in a week what nature does in from two and a half to three months.

GRAPES California is the leading state in the production of grapes, its output being 50 per cent of the entire crop and the industry is expanding annually, many acres being planted to vines each year. Over 10,000 acres of wine, table and raisin grapes were planted in Stanislaus County in 1921 and in 1922, the total grape acreage at this time being 17,590 acres of which approximately 7,500 acres are located in the TURLOCK IRRIGATION DISTRICT. This acreage is divided as follows: 3,500 acres wine grapes, 2,500 acres table grapes, 1,500 acres raisin grapes.

Conditions as to climate, soil and water for the cultivation of grapes in the TURLOCK IRRIGATION DISTRICT are admirable. Returns from this crop in the last few years have been high and as vineyards mean a permanent improvement to the land there has been a very decided trend towards this crop for the last six or seven years. Practically every variety of grapes is grown here, but the most popular in the various types are as follows: Wine, Zinfandel and Alicante Bouchet; table, Malaga; raisin, Thompson seedless.

Average (1922) gross yield per acre, 8 tons; average (1922) gross returns per acre, \$520.00.

PEACHES AND FIGS Peaches and figs do very well in the TURLOCK IRRIGATION DISTRICT as is witnessed by the fact that there is located in TURLOCK a cannery operated by the G. W. Hume Company which is one of the largest in the state, as well as a branch packing house of the California Peach and Fig Growers' Association. About half of the peaches raised in the TURLOCK IRRIGATION DISTRICT are canning peaches and last year the Hume cannery put up in excess of 4,000 tons, valued at \$750,000. Included in their output were 810,000 cans of apricots which were valued at \$150,000. The fig cannery handled 450 tons of figs in the 1922 season, canning anywhere from ten to thirty tons a day. The growth of the fig industry is witnessed by the fact that in 1922 the capacity of the cannery was increased to three times what it had been formerly.

These plants, their products and payrolls, are an important factor in TURLOCK'S industrial life. The two above mentioned employed an average of 58 employees during 1922 with a payroll amounting to \$73,600, the plants themselves representing an investment of \$300,000.

Average (1922) gross yield per acre, 10 tons; average (1922) gross returns per acre, \$650.00, peaches. Average (1922) gross yield per acre, 4 tons; average (1922) gross returns per acre, \$120.00, figs.



(1) A few Watermelons (2) A Usual Sight During Melon Shipping Season
(3) Packing Fancy Melons—Grown Here in Abundance

SPINACH AND TOMATOES

There is probably no section of California where garden truck does better than in the TURLOCK IRRIGATION DISTRICT. Within the last few years spinach and tomatoes have been raised on an increasing commercial scale, finding a market through the canning operations of the Hume organization. In 1922 there were 150 acres of spinach grown averaging six tons to the acre while it is not unusual for an intensive agriculturalist to secure 10 tons of canning tomatoes to the acre.

RAISINS

There is a branch packing house in TURLOCK of the Sun-Maid Raisin Growers, which takes care of the raisin output of this section. In 1922 they handled 1700 tons of raisins valued at \$212,000. This plant in connection with those mentioned above and that of the California Sweet Potato Corporation gives the city an industrial payroll founded on agricultural pursuits amounting to \$88,600 annually with 75 persons as the average number of employees.

CONCLUSION

The purpose of this booklet has been to simply give the reader a good general idea of TURLOCK and the TURLOCK IRRIGATION DISTRICT and what this section of the "Garden of the Sun" has to offer those who intend to make their homes in California. Conscientious effort has been made to keep it free from all exaggeration, either of language or statistics, it being felt that TURLOCK and the TURLOCK IRRIGATION DISTRICT have in themselves convincing proof as to their advantages for anyone who would take the trouble to personally investigate this section.

In describing crops and agricultural activities it is impossible to cover all details in a pamphlet of this sort but those who are interested in such matters are urged to communicate with the Chamber of Commerce which will be very glad of the opportunity to answer at length any queries.

It is possible to only inadequately portray the real situation with photographs or description as far as TURLOCK and the TURLOCK IRRIGATION DISTRICT are concerned. For the farmer who has battled with snow and drought, storms and cyclones, the TURLOCK IRRIGATION DISTRICT would indeed seem a haven of peace and plenty and it is such a port for those who will devote their best energies, both mental and physical, to tilling the rich soil.

GROWTH OF THE TURLOCK IRRIGATION DISTRICT

Year	Number of Taxpayers	Assessed Valuation	Bonded Indebtedness	Tax Rate	Total Tax
1901.....	401	1,778,589	1,170,000	2.40	40,766.40
1906.....	1,247	3,545,630	1,254,200	3.40	120,551.42
1911.....	3,255	9,308,000	1,545,160	2.62	243,969.60
1916.....	5,340	9,783,685	2,575,200	3.10	303,527.15
1921.....	5,923	12,094,010	5,742,000	5.00	604,700.00
1922.....	6,396	11,920,245	6,710,000	5.60	667,378.82

JUNE, 1923

By L. E. FULLER

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